

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 09/967,237B  
Source: JFW/6  
Date Processed by STIC: 11/23/2005

***ENTERED***



IFW16

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/967,237B

DATE: 11/23/2005

TIME: 11:14:06

Input Set : A:\USSN 09-967,237 SUB SEQ LISTING.txt  
 Output Set: N:\CRF4\11232005\I967237B.raw

(Pg-6)

3 <110> APPLICANT: Zavada, Jan  
 4 Pastorekova, Silvia  
 5 Pastorek, Jaromir  
 7 <120> TITLE OF INVENTION: MN Gene and Protein  
 9 <130> FILE REFERENCE: D-0021.5B-2  
 11 <140> CURRENT APPLICATION NUMBER: 09/967,237B  
 12 <141> CURRENT FILING DATE: 2001-09-27  
 14 <150> PRIOR APPLICATION NUMBER: 09/178,115  
 15 <151> PRIOR FILING DATE: 1998-10-23  
 17 <160> NUMBER OF SEQ ID NOS: 116  
 19 <170> SOFTWARE: PatentIn Ver. 2.1  
 21 <210> SEQ ID NO: 1  
 22 <211> LENGTH: 1522  
 23 <212> TYPE: DNA  
 24 <213> ORGANISM: HUMAN  
 26 <220> FEATURE:  
 27 <221> NAME/KEY: CDS  
 28 <222> LOCATION: (13)..(1389)  
 30 <220> FEATURE:  
 31 <221> NAME/KEY: mat\_peptide  
 32 <222> LOCATION: (124)..(1389)  
 34 <400> SEQUENCE: 1  
 35 acagtcagcc gc atg gct ccc ctg tgc ccc agc ccc tgg ctc cct ctg ttg 51  
 36 Met Ala Pro Leu Cys Pro Ser Pro Trp Leu Pro Leu Leu  
 37 -35 -30 -25  
 39 atc ccg gcc cct gct cca ggc ctc act gtg caa ctg ctg tca ctg 99  
 40 Ile Pro Ala Pro Ala Pro Gly Leu Thr Val Gln Leu Leu Leu Ser Leu  
 41 -20 -15 -10  
 43 ctg ctt ctg atg cct gtc cat ccc cag agg ttg ccc cgg atg cag gag 147  
 44 Leu Leu Leu Met Pro Val His Pro Gln Arg Leu Pro Arg Met Gln Glu  
 45 -5 -1 1 5  
 47 gat tcc ccc ttg gga gga ggc tct tct ggg gaa gat gac cca ctg ggc 195  
 48 Asp Ser Pro Leu Gly Gly Ser Ser Gly Glu Asp Asp Pro Leu Gly  
 49 10 15 20  
 51 gag gag gat ctg ccc agt gaa gag gat tca ccc aga gag gag gat cca 243  
 52 Glu Glu Asp Leu Pro Ser Glu Glu Asp Ser Pro Arg Glu Glu Asp Pro  
 53 25 30 35 40  
 55 ccc gga gag gag gat cta cct gga gag gag gat cta cct gga gag gag 291  
 56 Pro Gly Glu Glu Asp Leu Pro Gly Glu Glu Asp Leu Pro Gly Glu Glu  
 57 45 50 55  
 59 gat cta cct gaa gtt aag cct aaa tca gaa gaa gag ggc tcc ctg aag 339  
 60 Asp Leu Pro Glu Val Lys Pro Lys Ser Glu Glu Glu Gly Ser Leu Lys  
 61 60 65 70

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63	tta	gag	gat	cta	cct	act	gtt	gag	gct	cct	gga	gat	cct	caa	gaa	ccc	387
64	Leu	Glu	Asp	Leu	Pro	Thr	Val	Glu	Ala	Pro	Gly	Asp	Pro	Gln	Glu	Pro	
65	75						80							85			
67	cag	aat	aat	gcc	cac	agg	gac	aaa	gaa	ggg	gat	gac	cag	agt	cat	tgg	435
68	Gln	Asn	Asn	Ala	His	Arg	Asp	Lys	Glu	Gly	Asp	Asp	Gln	Ser	His	Trp	
69	90						95							100			
71	cgc	tat	gga	ggc	gac	ccg	ccc	tgg	ccc	cg	gtg	tcc	cca	gcc	tgc	g	483
72	Arg	Tyr	Gly	Gly	Asp	Pro	Pro	Trp	Pro	Arg	Val	Ser	Pro	Ala	Cys	Ala	
73	105						110				115			120			
75	ggc	cgc	tcc	cag	ttc	ccg	gtg	gat	atc	cgc	ccc	cag	ctc	gcc	ttc		531
76	Gly	Arg	Phe	Gln	Ser	Pro	Val	Asp	Ile	Arg	Pro	Gln	Leu	Ala	Ala	Phe	
77							125				130			135			
79	tgc	ccg	gcc	ctg	cgc	ccc	ctg	gaa	ctc	ctg	ggc	ttc	cag	ctc	ccg	ccg	579
80	Cys	Pro	Ala	Leu	Arg	Pro	Leu	Glu	Leu	Leu	Gly	Phe	Gln	Leu	Pro	Pro	
81							140			145			150				
83	ctc	cca	gaa	ctg	cgc	ctg	cgc	aac	aat	ggc	cac	agt	gtg	caa	ctg	acc	627
84	Leu	Pro	Glu	Leu	Arg	Leu	Arg	Asn	Asn	Gly	His	Ser	Val	Gln	Leu	Thr	
85							155			160			165				
87	ctg	cct	ggg	cta	gag	atg	gct	ctg	gg	ccc	gg	cg	gag	tac	ccg		675
88	Leu	Pro	Pro	Gly	Leu	Glu	Met	Ala	Leu	Gly	Pro	Gly	Arg	Glu	Tyr	Arg	
89							170			175			180				
91	gct	ctg	cag	ctg	cat	ctg	cac	tgg	ggg	gct	gca	ggt	cgt	ccg	ggc	tcg	723
92	Ala	Leu	Gln	Leu	His	Leu	His	Trp	Gly	Ala	Ala	Gly	Arg	Pro	Gly	Ser	
93	185						190			195			200				
95	gag	cac	act	gtg	gaa	ggc	cac	cgt	ttc	cct	gcc	gag	atc	cac	gtg	gtt	771
96	Glu	His	Thr	Val	Glu	Gly	His	Arg	Phe	Pro	Ala	Glu	Ile	His	Val	Val	
97							205			210			215				
99	cac	ctc	agc	acc	gcc	ttt	gcc	aga	gtt	gac	gag	gcc	ttt	ggg	ccg	ccg	819
100	His	Leu	Ser	Thr	Ala	Phe	Ala	Arg	Val	Asp	Glu	Ala	Leu	Gly	Arg	Pro	
101							220			225			230				
103	gga	ggc	ctg	gcc	gtg	ttt	gcc	g	ttt	ctg	gag	gag	ggc	ccg	gaa	gaa	867
104	Gly	Gly	Leu	Ala	Val	Leu	Ala	Ala	Phe	Leu	Glu	Glu	Pro	Glu	Glu		
105							235			240			245				
107	aac	agt	gcc	tat	gag	cag	ttg	ctg	tct	cgc	ttt	gaa	gaa	atc	gct	gag	915
108	Asn	Ser	Ala	Tyr	Glu	Gln	Leu	Leu	Ser	Arg	Leu	Glu	Glu	Ile	Ala	Glu	
109							250			255			260				
111	gaa	ggc	tca	gag	act	cag	gtc	cca	gga	ctg	gac	ata	tct	gca	ctc	ctg	963
112	Glu	Gly	Ser	Glu	Thr	Gln	Val	Pro	Gly	Leu	Asp	Ile	Ser	Ala	Leu	Leu	
113	265						270			275			280				
115	ccc	tct	gac	ttc	agc	cgc	tac	ttc	caa	tat	gag	ggg	tct	ctg	act	aca	1011
116	Pro	Ser	Asp	Phe	Ser	Arg	Tyr	Phe	Gln	Tyr	Glu	Gly	Ser	Leu	Thr	Thr	
117							285			290			295				
119	ccg	ccc	tgt	gcc	cag	gg	gt	atc	tgg	act	gt	ttt	aa	cag	aca	gt	1059
120	Pro	Pro	Cys	Ala	Gln	Gly	Val	Ile	Trp	Thr	Val	Phe	Asn	Gln	Thr	Val	
121							300			305			310				
123	atg	ctg	agt	gt	aag	cag	ctc	cac	acc	ctc	tct	gac	acc	ctg	tgg	g	1107
124	Met	Leu	Ser	Ala	Lys	Gln	Leu	His	Thr	Leu	Ser	Asp	Thr	Leu	Trp	Gly	
125							315			320			325				
127	cct	gg	t	c	cg	ct	c	g	a	c	t	cc	g	c	g	tt	1155

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Output Set: N:\CRF4\11232005\I967237B.raw

128 Pro Gly Asp Ser Arg Leu Gln Leu Asn Phe Arg Ala Thr Gln Pro Leu  
 129 330 335 340  
 131 aat ggg cga gtg att gag gcc tcc ttc cct gct gga gtg gac agc agt 1203  
 132 Asn Gly Arg Val Ile Glu Ala Ser Phe Pro Ala Gly Val Asp Ser Ser  
 133 345 350 355 360  
 135 cct cggt gct gag cca gtc cag ctg aat tcc tgc ctg gct gct ggt 1251  
 136 Pro Arg Ala Ala Glu Pro Val Gln Leu Asn Ser Cys Leu Ala Ala Gly  
 137 365 370 375  
 139 gac atc cta gcc ctg gtt ttt ggc ctc ctt ttt gct gtc acc agc gtc 1299  
 140 Asp Ile Leu Ala Leu Val Phe Gly Leu Leu Phe Ala Val Thr Ser Val  
 141 380 385 390  
 143 gcg ttc ctt gtg cag atg aga agg cag cac aga agg gga acc aaa ggg 1347  
 144 Ala Phe Leu Val Gln Met Arg Arg Gln His Arg Arg Gly Thr Lys Gly  
 145 395 400 405  
 147 ggt gtg agc tac cgc cca gca gag gta gcc gag act gga gcc 1389  
 148 Gly Val Ser Tyr Arg Pro Ala Glu Val Ala Glu Thr Gly Ala  
 149 410 415 420  
 151 tagaggctgg atcttgaga atgtgagaag ccagccagag gcatctgagg gggagccgg 1449  
 153 aactgtcctg tcctgctcat tatgccactt ccttttaact gccaagaaat tttttaaat 1509  
 155 aaatatttat aat 1522  
 158 <210> SEQ ID NO: 2  
 159 <211> LENGTH: 459  
 160 <212> TYPE: PRT  
 161 <213> ORGANISM: HUMAN  
 163 <400> SEQUENCE: 2  
 164 Met Ala Pro Leu Cys Pro Ser Pro Trp Leu Pro Leu Leu Ile Pro Ala  
 165 -35 -30 -25  
 167 Pro Ala Pro Gly Leu Thr Val Gln Leu Leu Leu Ser Leu Leu Leu  
 168 -20 -15 -10  
 170 Met Pro Val His Pro Gln Arg Leu Pro Arg Met Gln Glu Asp Ser Pro  
 171 -5 -1 1 5 10  
 173 Leu Gly Gly Ser Ser Gly Glu Asp Asp Pro Leu Gly Glu Glu Asp  
 174 15 20 25  
 176 Leu Pro Ser Glu Glu Asp Ser Pro Arg Glu Glu Asp Pro Pro Gly Glu  
 177 30 35 40  
 179 Glu Asp Leu Pro Gly Glu Asp Leu Pro Gly Glu Glu Asp Leu Pro  
 180 45 50 55  
 182 Glu Val Lys Pro Lys Ser Glu Glu Glu Gly Ser Leu Lys Leu Glu Asp  
 183 60 65 70 75  
 185 Leu Pro Thr Val Glu Ala Pro Gly Asp Pro Gln Glu Pro Gln Asn Asn  
 186 80 85 90  
 188 Ala His Arg Asp Lys Glu Gly Asp Asp Gln Ser His Trp Arg Tyr Gly  
 189 95 100 105  
 191 Gly Asp Pro Pro Trp Pro Arg Val Ser Pro Ala Cys Ala Gly Arg Phe  
 192 110 115 120  
 194 Gln Ser Pro Val Asp Ile Arg Pro Gln Leu Ala Ala Phe Cys Pro Ala  
 195 125 130 135  
 197 Leu Arg Pro Leu Glu Leu Leu Gly Phe Gln Leu Pro Pro Leu Pro Glu  
 198 140 145 150 155

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/967,237B

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Input Set : A:\USSN 09-967,237 SUB SEQ LISTING.txt  
 Output Set: N:\CRF4\11232005\I967237B.raw

200 Leu Arg Leu Arg Asn Asn Gly His Ser Val Gln Leu Thr Leu Pro Pro  
 201 160 165 170  
 203 Gly Leu Glu Met Ala Leu Gly Pro Gly Arg Glu Tyr Arg Ala Leu Gln  
 204 175 180 185  
 206 Leu His Leu His Trp Gly Ala Ala Gly Arg Pro Gly Ser Glu His Thr  
 207 190 195 200  
 209 Val Glu Gly His Arg Phe Pro Ala Glu Ile His Val Val His Leu Ser  
 210 205 210 215  
 212 Thr Ala Phe Ala Arg Val Asp Glu Ala Leu Gly Arg Pro Gly Gly Leu  
 213 220 225 230 235  
 215 Ala Val Leu Ala Ala Phe Leu Glu Glu Gly Pro Glu Glu Asn Ser Ala  
 216 240 245 250  
 218 Tyr Glu Gln Leu Leu Ser Arg Leu Glu Glu Ile Ala Glu Glu Gly Ser  
 219 255 260 265  
 221 Glu Thr Gln Val Pro Gly Leu Asp Ile Ser Ala Leu Leu Pro Ser Asp  
 222 270 275 280  
 224 Phe Ser Arg Tyr Phe Gln Tyr Glu Gly Ser Leu Thr Thr Pro Pro Cys  
 225 285 290 295  
 227 Ala Gln Gly Val Ile Trp Thr Val Phe Asn Gln Thr Val Met Leu Ser  
 228 300 305 310 315  
 230 Ala Lys Gln Leu His Thr Leu Ser Asp Thr Leu Trp Gly Pro Gly Asp  
 231 320 325 330  
 233 Ser Arg Leu Gln Leu Asn Phe Arg Ala Thr Gln Pro Leu Asn Gly Arg  
 234 335 340 345  
 236 Val Ile Glu Ala Ser Phe Pro Ala Gly Val Asp Ser Ser Pro Arg Ala  
 237 350 355 360  
 239 Ala Glu Pro Val Gln Leu Asn Ser Cys Leu Ala Ala Gly Asp Ile Leu  
 240 365 370 375  
 242 Ala Leu Val Phe Gly Leu Leu Phe Ala Val Thr Ser Val Ala Phe Leu  
 243 380 385 390 395  
 245 Val Gln Met Arg Arg Gln His Arg Arg Gly Thr Lys Gly Gly Val Ser  
 246 400 405 410  
 248 Tyr Arg Pro Ala Glu Val Ala Glu Thr Gly Ala  
 249 415 420  
 253 <210> SEQ ID NO: 3  
 254 <211> LENGTH: 29  
 255 <212> TYPE: DNA  
 256 <213> ORGANISM: HUMAN  
 258 <400> SEQUENCE: 3  
 259 cggccagtgg gtcatttcc ccagaagag 29  
 262 <210> SEQ ID NO: 4  
 263 <211> LENGTH: 19  
 264 <212> TYPE: DNA  
 265 <213> ORGANISM: HUMAN  
 267 <400> SEQUENCE: 4  
 268 ggaatcctcc tgcattccgg 19  
 271 <210> SEQ ID NO: 5  
 272 <211> LENGTH: 10898  
 273 <212> TYPE: DNA

## **RAW SEQUENCE LISTING**

DATE: 11/23/2005

PATENT APPLICATION: US/09/967,237B

TIME: 11:14:06

Input Set : A:\USSN 09-967,237 SUB SEQ LISTING.txt

Output Set: N:\CRF4\11232005\1967237B.raw

RAW SEQUENCE LISTING ERROR SUMMARY                    DATE: 11/23/2005  
PATENT APPLICATION: US/09/967,237B                    TIME: 11:14:07

Input Set : A:\USSN 09-967,237 SUB SEQ LISTING.txt  
Output Set: N:\CRF4\11232005\I967237B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; N Pos. 1974  
Seq#:25; Xaa Pos. 3,4  
Seq#:26; Xaa Pos. 3,4  
Seq#:58; N Pos. 1968  
Seq#:90; N Pos. 1968  
Seq#:110; N Pos. 647

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:5; Line(s) 284  
Seq#:9; Line(s) 518  
Seq#:25; Line(s) 689,695  
Seq#:26; Line(s) 710,715  
Seq#:58; Line(s) 1353,1359,1360  
Seq#:90; Line(s) 1794,1800,1801  
Seq#:110; Line(s) 2084,2090

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/967,237B

DATE: 11/23/2005

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Input Set : A:\USSN 09-967,237 SUB SEQ LISTING.txt  
Output Set: N:\CRF4\11232005\I967237B.raw

L:282 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5  
L:319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:1920  
L:516 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:9  
L:639 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (21) SEQUENCE:  
L:693 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:25  
L:698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0  
L:713 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:26  
L:718 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0  
L:1357 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:58  
L:1395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:1920  
L:1792 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:90  
L:1798 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:90  
L:1836 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:1920  
L:2088 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:110  
L:2104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:110 after pos.:600